

Appl. No. 10/714,095
Amdt. sent September 27, 2006
Reply to Office Action of May 1, 2006

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

- 1 1. (Currently amended): A system for a device having a printed circuit board
2 inside it, comprising:
3 a motion sensor ~~mounted on~~ operatively coupled to said printed circuit board
4 ~~inside of~~ said device, said motion sensor having a motion signal output; and
5 a detection circuit connected to said motion signal output and having a trigger
6 signal output;
7 said motion sensor comprising:
8 a ball contact; and
9 at least one stationary contact disposed on said printed circuit board of
10 said device,
11 wherein said ball contact is in electrical contact with said at least one
12 stationary contact.
- 1 2. (Original): The system of claim 1, wherein said system is a wake-up
2 system.
- 1 3. (Original): The wake-up system of claim 2, wherein said trigger signal
2 output is a wake-up signal output.
- 1 4. (Original): The wake-up system of claim 2, wherein said device is an
2 input device.
- 1 5. (Original): The system of claim 1, wherein said motion sensor is a
2 mechanical motion sensor.

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- 1 6. (Original): The system of claim 5, wherein said motion sensor is a tilt
2 sensor.
- 1 7. (Original): The wake-up system of claim 4, wherein said input device is a
2 mouse.
- 1 8. (Original): The wake-up system of claim 7, wherein said mouse is an
2 optical mouse.
- 1 9. (Original): The wake-up system of claim 4, wherein said input device is
2 wireless.
10. (Canceled)
- 1 11. (Currently amended): The system of claim ~~10~~ 1, wherein said stationary
2 contact is printed on said printed circuit board.
- 1 12. (Currently amended): The system of claim ~~10~~ 1, wherein said stationary
2 contact has a hole in the center.
- 1 13. (Currently amended): The system of claim ~~10~~ 1, wherein the stationary
2 contact has an inclined surface toward its center.
- 1 14. (Currently amended): The system of claim ~~10~~ 6, wherein the sensitivity of
2 said tilt sensor is adjustable during manufacture.
- 1 15. (Currently amended): The system of claim ~~14~~ 6, wherein the sensitivity of
2 said tilt sensor is adjusted by the size of the hole.
- 1 16. (Original): The system of claim 14, wherein the sensitivity of said tilt
2 sensor is adjustable by the size of the ball contact.

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1 17. (Original): The system of claim 14, wherein the sensitivity of said tilt
2 sensor is adjustable by the weight of the ball contact.

1 18. (Original): The system of claim 14, wherein the sensitivity of said tilt
2 sensor is adjustable by the conductivity of the ball contact.

1 19. (Currently amended): The system of claim ~~10~~ 6, wherein said tilt sensor
2 comprises plural stationary contacts.

1 20. (Original): The system of claim 19, wherein the plural stationary contacts
2 are arranged as pieces of a pie.

1 21. (Original): The system of claim 19, wherein there are 2 stationary
2 contacts.

1 22. (Original): The system of claim 19, wherein there are 4 stationary
2 contacts.

1 23. (Original): The system of claim 19, wherein there are 6 stationary
2 contacts.

1 24. (Original): The system of claim 19, wherein there are 8 stationary
2 contacts.

1 25. (Currently amended): The system of claim ~~10~~ 6, wherein said ball contact
2 is a conductive ball.

1 26. (Currently amended): The system of claim ~~10~~ 6, wherein the ball contact
2 is gold-plated.

1 27. (Currently amended): The system of claim ~~10~~ 6, wherein said stationary
2 contact is gold-plated.

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1 28. (Original): The system of claim 1, wherein said motion sensor further
2 includes a housing and said housing is sealed.

1 29. (Original): The system of claim 28, wherein said housing is sealed with
2 an O-ring.

1 30. (Original): The system of claim 28, wherein said housing is sealed with
2 an adhesive.

1 31. (Currently amended): The system of claim 1, wherein said motion sensor
2 comprises an electrical switch and said detection circuit detects a change in state of whether said
3 switch is opened or closed.

1 32. (Original): The system of claim 31, wherein said detection circuit
2 comprises: a motion detector that determines if there is a change in the opened or closed state of
3 a motion sensor switch; and a signal processing circuit having a latch circuit that creates a signal
4 of a particular level for a period of time to generate a wake-up signal.

1 33. (Original): The system of claim 32, wherein the motion detector of said
2 detection circuit comprises two invertors for amplifying and converting a motion signal pulse
3 from the motion sensor.

34. (Canceled)

1 35. (Currently amended): An input device comprising:
2 a printed circuit board;
3 a motion sensor ~~mounted inside the input device on~~ operatively coupled to the
4 printed circuit board of the input device, said motion sensor having a motion signal output; and
5 a detection circuit responsive to said motion signal and having a wake-up signal
6 output;
7 said motion sensor comprising:

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8 a ball contact; and
9 at least one stationary contact disposed on said printed circuit board of
10 said device.
11 wherein said ball contact is in electrical contact with said at least one
12 stationary contact.

1 36. (Currently amended): A method of waking-up an input device having a
2 printed circuit board inside it, comprising:
3 ~~mounting-operatively coupling~~ a motion sensor ~~directly on to~~ said printed circuit
4 board, said motion sensor comprising:
5 a ball contact; and
6 at least one stationary contact disposed on said printed circuit board of
7 said device.
8 wherein said ball contact is in electrical contact with said at least one
9 stationary contact;
10 outputting a motion signal from said motion sensor;
11 providing a detection circuit responsive to said motion signal; and
12 outputting a wake-up signal from said detection circuit to circuitry of said input
13 device to wake-up said input device.

1 37. (Original): The method of claim 36, wherein said input device further
2 comprises a microprocessor and said microprocessor wakes-up the input device in response to
3 said wake-up signal from said detection circuit.